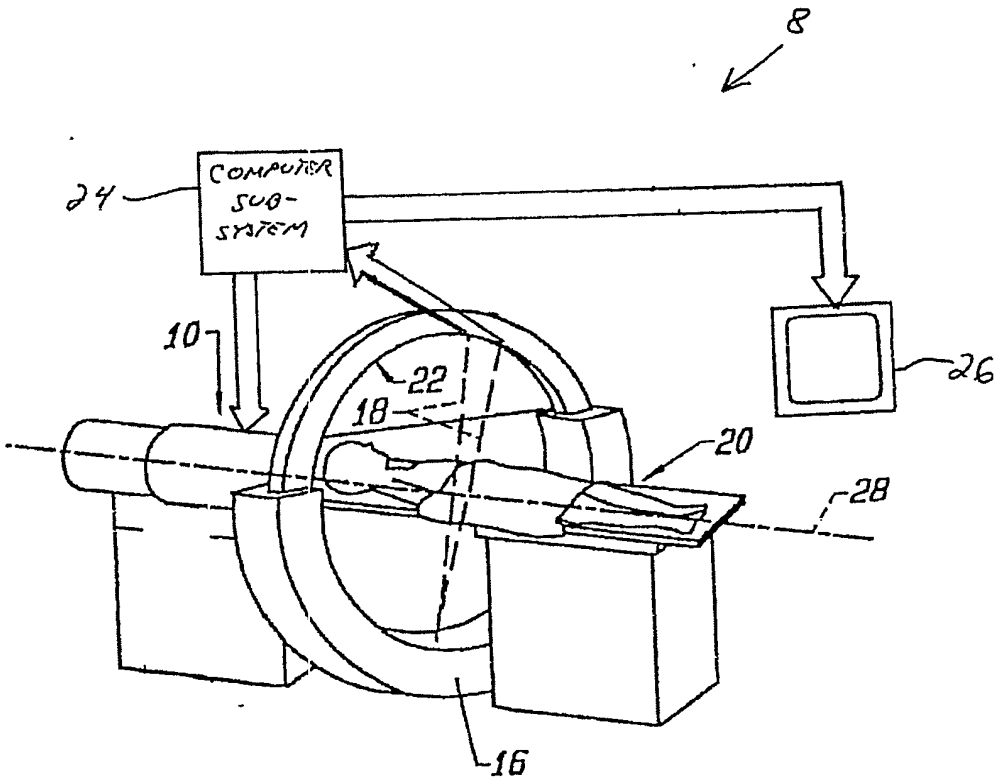


FIG. 1

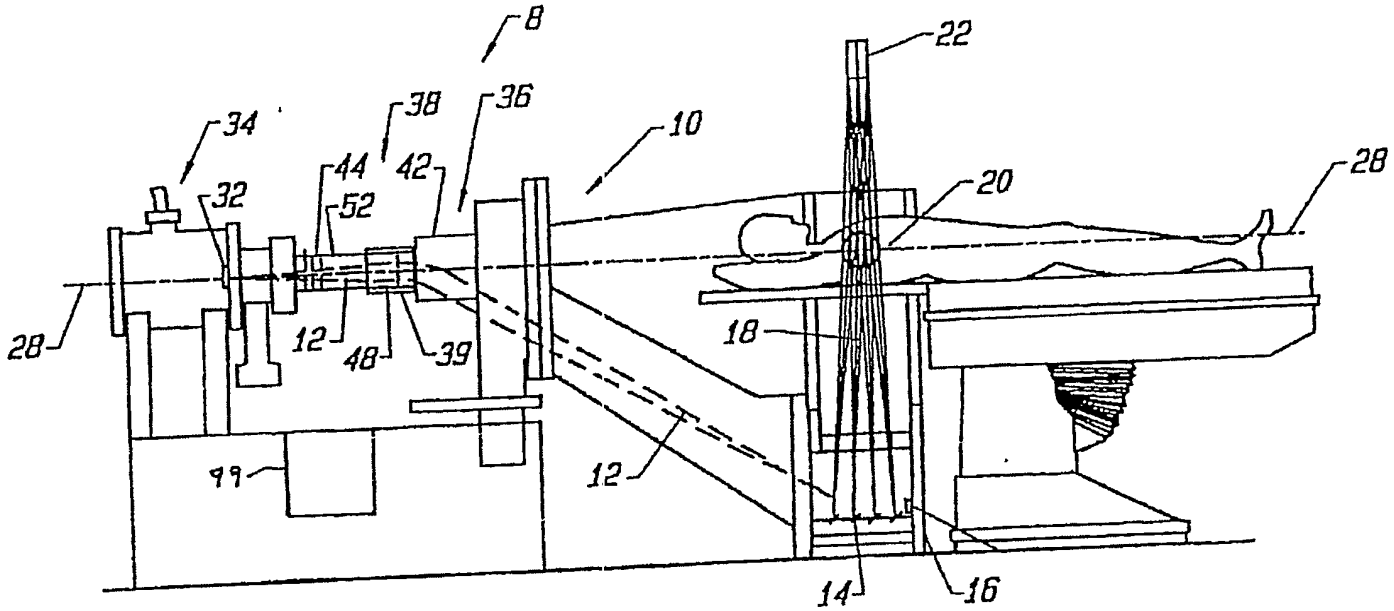


FIG. 2

Figure 3

300

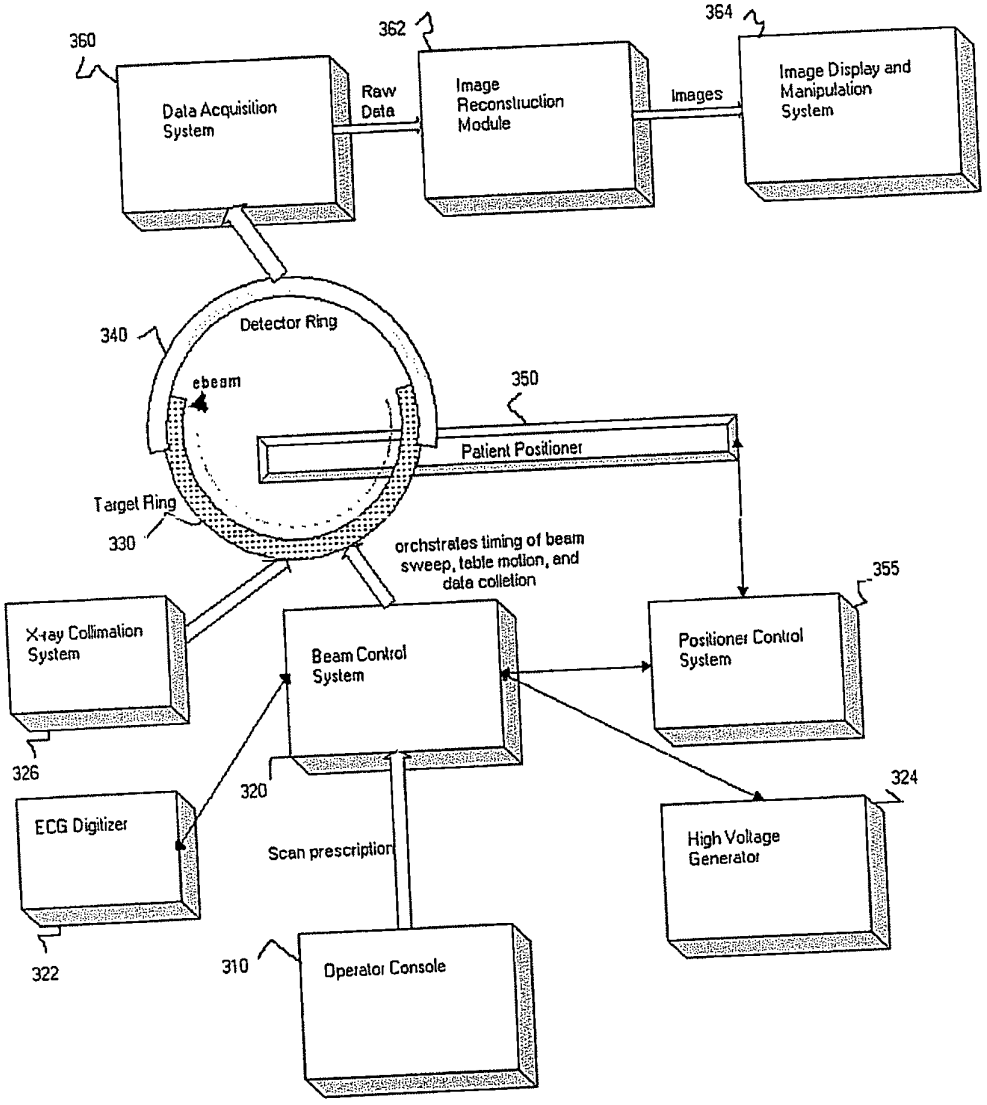
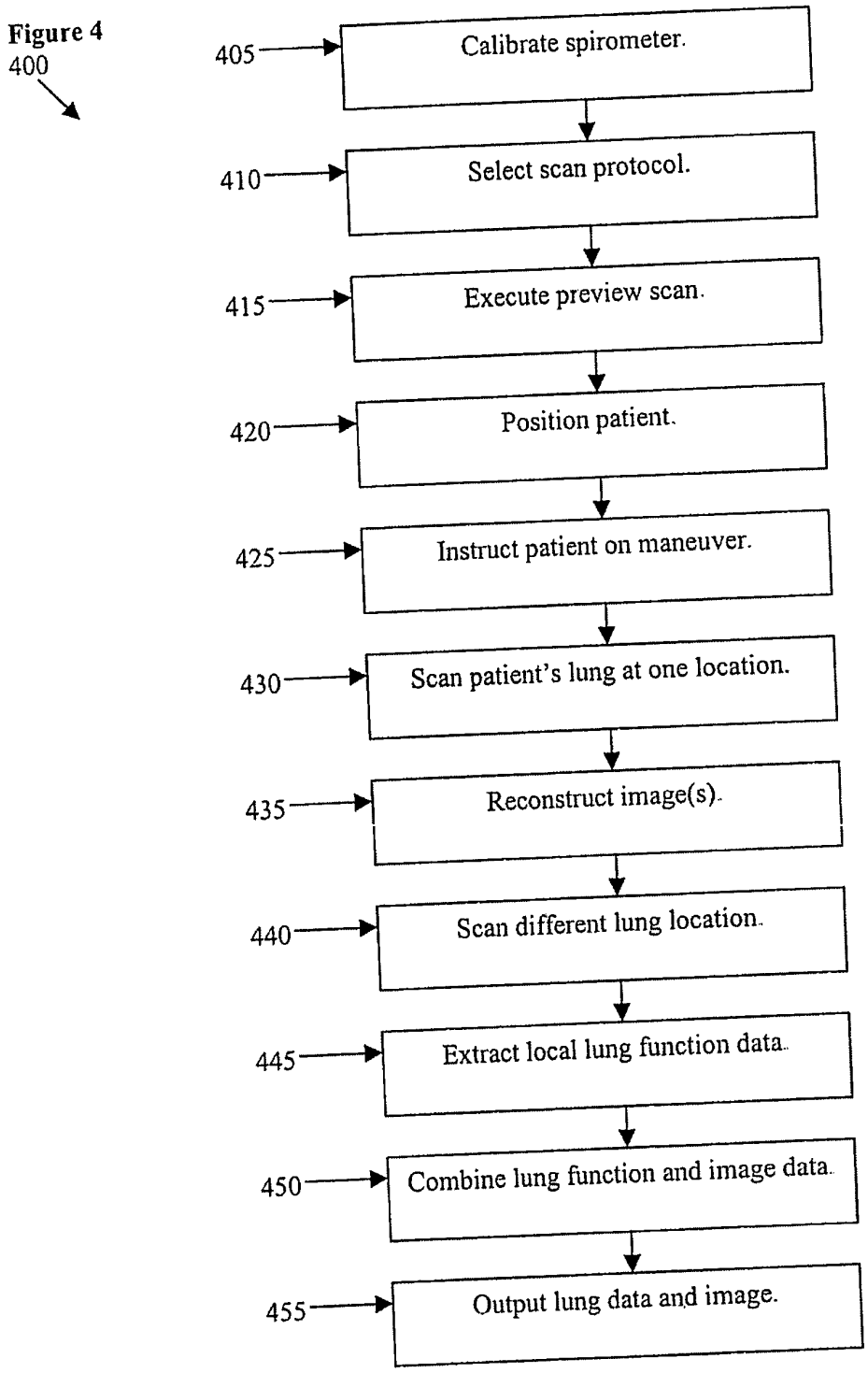

360
Data Acquisition System
Raw Data
362
Image Reconstruction Module
Images
364
Image Display and Manipulation System
340
Detector Ring
ebeam
350
Patient Positioner
Target Ring
330
orchstrates timing of beam sweep, table motion, and data colletion
355
X-ray Collimation System
Beam Control System
Positioner Control System
326
320
324
ECG Digitizer
Scan prescription
High Voltage Generator
322
310
Operator Console

Figure 4


400
405
Calibrate spirometer.
410
Select scan protocol.
415
Execute preview scan.
420
Position patient.
425
Instruct patient on maneuver.
430
Scan patient's lung at one location.
435
Reconstruct image(s).
440
Scan different lung location.
445
Extract local lung function data.
450
Combine lung function and image data.
455
Output lung data and image.